John Morrell & Company Meat Packing Plant
316 South Iowa Street
Ottumwa
Wapello County
Iowa

HAER No. IA-34

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
U.S. Department of the Interior
P.O. Box 25287
Denver, Colorado 80225

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HISTORIC AMERICAN ENGINEERING RECORD

John Morrell & Company Meat Packing Plant

HAER No. IA-34

Location:	316 South Iowa Street Ottumwa, Wapello County, Iowa
Date of Construction:	Building 49: completed--1924, addition--1940, gateway element demolished--1962-1965, interior gutted--1985-1991. Building 27B: completed--1940-41, loading dock altered--1962-1965 Building 15: completed--1932, top three stories added--1935, modified--1974
Present Owner:	City of Ottumwa 105 East Third Avenue Ottumwa, Iowa 52501
Present Use:	Vacant. Projected demolition date is fall 1991.
Significance:	John Morrell & Company played a significant role in the development of the City of Ottumwa from 1877 to 1973. The complex typifies meat packing as it developed in the midwest during the last quarter of the nineteenth century and the first half of the twentieth century. Building 49 is a good example of the popular Tudor Revival style used for corporate offices, and is representative of John Morrell & Company at a strong point in its business life. Buildings 27B and 15 represent the second generation of buildings in the complex and reflect the growth of the industry, the financial stability of the company and the optimism of its management. Both are good examples of meat packing design from the period, although both are unusual in the Art Moderne/Deco feel to their exteriors. Building 27B's outstanding facade design is noteworthy.
Historians:	Molly Myers Naumann, April 1991 Mary Yeater Rathbun, November 1991
Survey Assistant:	Brian Schultes, April 1991

Historic American Engineering Record Documentation

John Morrell & Company Meat Packing Plant

INTRODUCTION

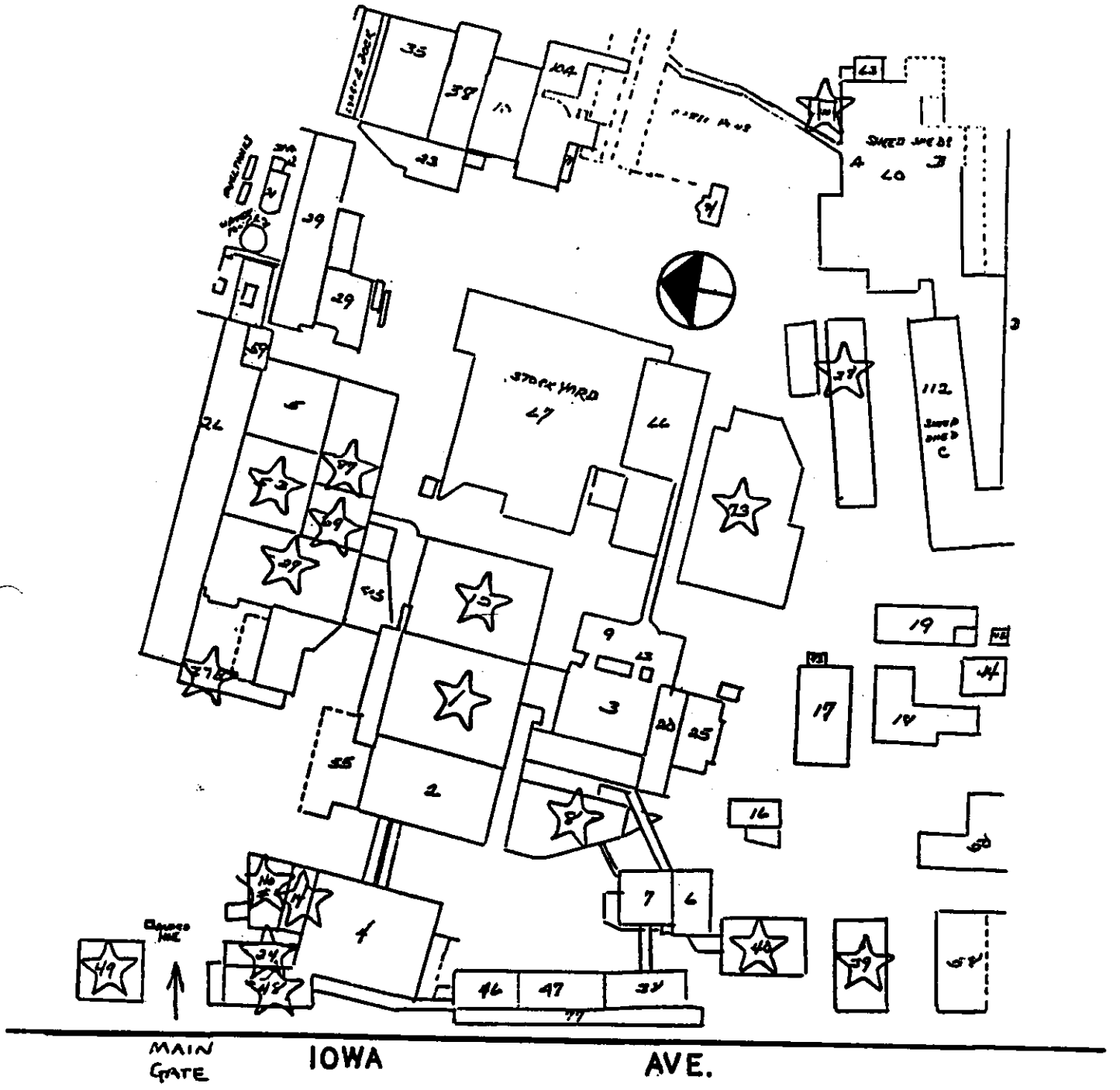
This Historic American Engineering Record (HAER) documentation project was undertaken because of the proposed demolition of four sets of buildings in the John Morrell & Company Meat Packing Plant Historic Complex (see the map on data page 4, IA-34). The four sets of buildings include one named and nine numbered units, hereafter referred to as individual buildings. John Morrell & Company assigned numbers to almost all of its buildings in Ottumwa and used them instead of building names (see the map on data page 3, IA-34). This record uses the numbers the company assigned the buildings in that same way, that is, as building names.

John Morrell & Company assigned the numbers in chronological order, with the first building it built being Building 1 and the last Building 122. However, the company complicated things along the way. When it tore a building down and replaced it, the company reassigned the original building's number to its replacement. Thus, Building 4, a replacement for the fourth building John Morrell & Company had built, has an 1886 construction date while Building 46, a building which was never replaced with a later building, has an 1883 construction date. Moreover, when the company added on to a numbered building, it sometimes assigned a new number to the addition and sometimes it didn't.

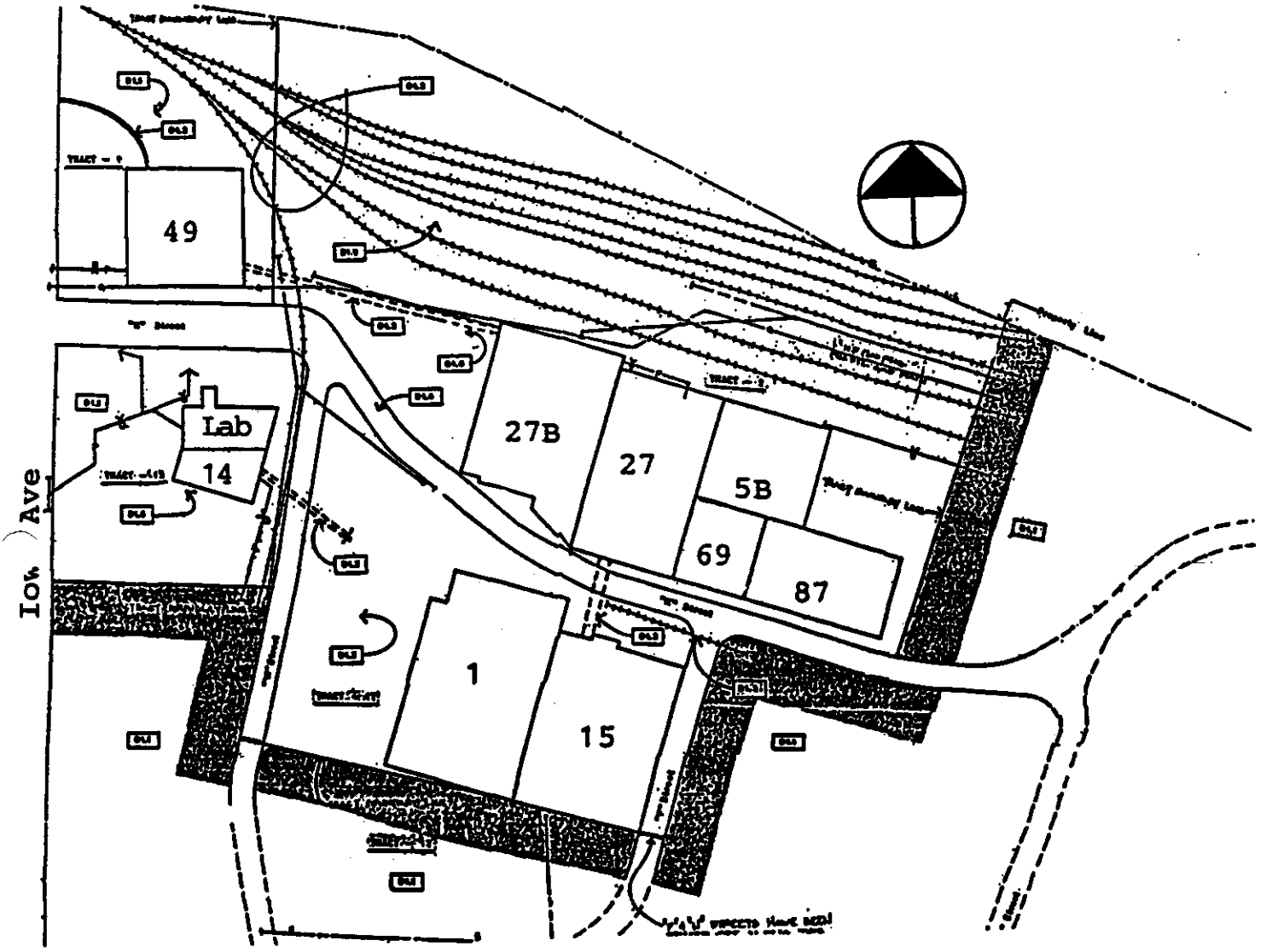
The proposed 1991 demolitions were not the first to affect the complex. In 1960 the complex included over 60 actively-used and interconnected buildings behind a brick Tudor arched gateway. By April, 1991, only 18 buildings were left (see the map on data page 3, IA-34), and a mere five of them were in use under new owners. Chain link fences cutting across drives and building foundations separated these few remaining structures from each other.

The City of Ottumwa had, however, made significant progress in terms of historic preservation planning, awareness, and sensitivity by 1991. In 1984 and 1985 the Area XV Regional Planning Commission and the State Bureau of Historic Preservation conducted an architectural survey of Ottumwa. These surveyors identified two buildings in the Morrell complex as being potentially eligible for listing on the National Register: Building 49 (Executive Office Building) and Building 48 (office building). They did not evaluate the industrial buildings, nor did they undertake any historical survey.

In light of these findings and the evaluations and survey work not yet completed, the city prevented any further demolition in the John Morrell & Company Meat Packing Plant until all 18 remaining buildings could be evaluated for significance in accordance with the eligibility criteria for nomination to the National Register of Historic Places. The City of Ottumwa used funds provided by the U.S. Department of Housing and Urban Development through a Title I grant to have the necessary evaluation done. Molly Myers Naumann and her survey assistant, Brian Schultes, completed the Intensive Level Architectural



Map drawn from 1940 Sanborn Fire Insurance.
Shows entire plant at that time, with numbers used by the company.
Stars denote 18 extant buildings as of July 1991.
(Adapted from Molly Myers Naumann and Brian Schultes, An Intensive Level Architectural & Historical Survey of the John Morrell & Company Meat Packing Plant, Ottumwa, Iowa, April, 1991.)



John Morrell & Company Meat Packing Plant
Endangered buildings, 1991.
(Adapted from Molly Myers Naumann and Brian Schultes, An Intensive Level Architectural & Historical Survey of the John Morrell & Company Meat Packing Plant, Ottumwa, Iowa, April, 1991, who drew it from one provided by Roth Asbestos and Environmental Consultants Incorporated, St. Louis MO.)

& Historical Survey of the John Morrell & Company Meat Packing Plant, Ottumwa, Iowa in April, 1991. Three buildings, from among the 10 slated for immediate demolition, were identified as being eligible to the National Register. These are the three structures this project documents to HAER standards: Building 49 (Executive Office Building), Building 27B and Building 15. Building 49 had both the architectural and historical significance and the integrity necessary for National Register eligibility. Building 27B, a ham and sausage smoking, cooking, cooling, assembling, boxing and distributing facility; and Building 15, a hog cutting, trimming, green grading, dry salt curing, cold storage and freezer facility, had the architectural and historical significance necessary for eligibility, but not the integrity.

DEVELOPMENT OF MEAT PACKING IN THE MIDDLE WEST

The shifts in the nature of the meat packing business in the Middle West are striking. As an infantile industry, in the early 19th century, pork packing was susceptible to many dangers. Later in the century, exciting and innovative technologies spurred on the development of the pork packing business. When the pork packing industry came of age, in the late 19th and early 20th centuries, it proved to be an astute student of industrial advancement. However, stagnation and resistance to change seized hold of the meat packing industry in the mid 20th century. As a result, packers were forced to radically alter their mode of operations in the later half of the 20th century to remain competitive.

The opening decades of the 19th century saw a concentration of packing activities in the Ohio River Valley. The major center of operations in the first half of this century was Cincinnati. Other centers of smaller scale stretched westward along navigable rivers to the future state of Illinois.[2]

In its first years west of the Appalachian Mountains, meat packing was a seasonal, fluctuating activity. The cold temperatures needed to preserve processed meats presented themselves only from late November to early March. Additionally, fluctuations in the number and availability of hogs meant instability in business operations. Also of key importance in shaping the early industry was a lack of adequate and timely transportation. Rivers were the most effective means of transportation, thus goods could only be moved during periods of open water -- the exact opposite months from when meat could be processed. Pork produced for consumption was packed in the winter and sent to its destination in early spring.[3]

The seasonal and unstable nature of packing activities in the first half of the 19th century made it unwise to engage in the business as one's sole source of income. The earliest packers were merchants first and foremost. Their position within the community gave them access to farmers' surplus stock, transportation facilities, and the capital needed to begin packing operations. Pork packing was a sideline endeavor that developed out of the merchant's ability to bring together unpredictable and disparate elements of the local community's economy and facilitate exchange.[4]

The first significant change in the structure of the packing industry came about in the decades of the 1850s and 1860s. As railroads began criss-crossing the nation, they became one of the earliest factors in the crystallization of the industry. Inter-regional and intra-regional movement of goods on a predictable schedule gave an air of certainty to the availability of raw materials and market access. This proved to be highly palatable to early packer merchants. In addition to assuring packers that they could receive and sell goods with a degree of regularity, the railroads also encouraged the concentration of industry around credit facilities already established in central, urban locations.[5]

As the availability of prompt transportation and accessible financial services became more widespread, the pork packing industry moved westward. In the 1850s and 1860s Chicago assumed a position of pre-eminence within the industry. St. Louis, Milwaukee, and Cincinnati lined up behind Chicago as important meat packing centers. Ostensibly, Chicago played a critical role in the industry's advancement. It was in the Windy City that railroad facilities and financial centers congregated. The two fed off of each other while the pork packing industry grew in leaps and bounds because of these centrally located facilities.[6]

Centralization of industry and financial services produced stability and success for some packers while leaving others behind. During the 1850s it was the rural packer that lost his competitive edge. He turned, out of necessity, to narrowly defined local markets for his livelihood. These small operations could and did survive but their role in shaping the modern industry was negligible at best.[7]

What was a seasonal activity only decades before had, hy the 1870s, developed into an industry, albeit a small one. Three factors contributed to this: 1, the centralization of credit facilities, railroad termini, and stockyards mentioned above, 2, the development of ice cooling technologies that extended the packing season to 10-12 months per year, and 3, the availability of these resources to entrepreneurs who could compress the early stages of packing ventures and move at breakneck speeds into the industrial era of meat packing.[8]

Changes in refrigerator car design during the 1860s and 1870s also provided an impetus for the packing industry's growth. Early refrigeration cars were inefficient and costly. Brine-cooled cars dripped their cooling solution and speeded the deterioration of iron and steel. Cars packed with ice and sawdust were an improvement, however these cars were not yet practical because crews had to load and pack ice onto the floor and walls, cover it with sawdust, and then load the meat. When that ice had melted enough to need replenishment, the crews' only choice was to take all the meat out, replace the ice and then reload the meat. Moreover, air did not move throughout the body of the car.[9]

Breakthroughs in the 1870s contributed to the extension of packing activities on a year round hasis. The bunker type refrigerated car allowed the ice to he loaded from the outside of the car. There were, in effect, compartments between the outside of the car and the cargo area. Doors on the outside of the car allowed crews to insert ice directly into these compartments without moving the cargo at all, a vast improvement over the old type that required all meat be

unloaded to replenish the stock of ice. The development of the Swift-Chase car was a key 19th century improvement. It not only utilized external loading of ice, it was also equipped to force air throughout the car.[10]

These cars were used until the years following the 1920s produced substantial changes in refrigeration technology. The development of mechanical refrigeration revolutionized meat packing activities. Mechanical refrigeration made it possible to achieve constant car temperatures and provided flexibility in temperature settings. After 1930, shipments of fresh and frozen meats increased exponentially except in those Depression years when all food production industries were riding the downhill portions of their decade long roller coaster ride.[11]

Following the ups and downs of the Depression years, the Middle Western meat production industry, along with most of the industries in the nation, experienced spectacular growth in production during World War II and the immediate post war years. However, unlike most industries which pulled out of the recession of the 1950s to rise to new heights in the 1960s, the packing industry remained mired in hard times. Changes in industrial building technology and design and in the structure of the national economy did, however, begin altering the industry's appearance in the late 1950s. This continued through the 1970s, the end of the period of study in this portion of this documentation because it was in the early 1970s that its then owner, AKM, closed the John Morrell & Company Meat Packing Plant in Ottumwa.

By the time that meat packing plants began being constructed west of the Appalachians, the so-called "slow burning" multi-story factory block had taken shape and gained wide acceptance among industrialists engaged in all kinds of industries in all parts of the United States. By the 1820s, even in places where space in an already developed industrial city had not yet become so valuable that sound financial planning made these multi-story blocks necessary, American industrialists were building this type of plant. It was, after all, the most modern kind of factory at the time. This was not, however, their only reason for building slow burning industrial structures. The design was practical for use in many industries, including pork packing. In addition to its slowness to catch on fire and its even slower burning, the qualities from which it s name was obviously derived, this simple, unpretentious, functional plan had other advantages. It allowed the maximum amount of machinery in the smallest amount of space. Its ability to accept low ceilings and a minimum of windows also appealed to owners' desire to economize. Growing out of early American industrialists' desire to rationalize procedures and integrate vertical technologies into the structure of buildings, the slow burning factory represented state of the art construction and design techniques from the 1820s through the 1940s, although its inner technical construction, but not its external appearance, was somewhat modified after the turn of the century.[12]

Slow burning factories were flat, unornamented brick buildings. Inside the structure, an observer would note the use of unclad wood beams, columns, and floor joists. Floors of several layers of wood planking provided strength to

support heavy machinery. The designers rationalized the extensive use of wood in the belief that the structure would burn slowly enough to allow crews to extinguish blazes before they became too serious. Wood also happened to be the only practical material for structural support until the late 19th and early 20th century.[13]

The development of reinforced concrete in the last quarter of the 19th century provided some stimulus for change in industrial design. Of greater importance, however, was the use of steel to replace wood as the primary material for structural support in the first decades of the 20th century.[14] Hans Peter Henschien, the principal designer of the three buildings being documented here, reflected these trends in his 1915 text on designing meat processing plants: Packing House and Cold Storage Construction; a general reference work on the planning, construction and equipment of modern American meat packing plants, with special reference to the requirements of the United States government; and a complete treatise on the design of cold storage plants, including refrigeration, insulation, and cost data .[15]

However, gradual changes in the construction and design of their buildings were not enough to keep meat packers on the path of industrial progress. Apparently, the leading packers of the late 19th and early 20th centuries, who had rushed to update their plants, became sluggish and reluctant to adopt new technologies in the post-World War II era. This sluggishness led to eventual abrupt changes in the meat packing industry.[16]

Starting in the period between the two World Wars, architects and engineers began adapting some of the designs developed to serve the pre-World War I automobile plants in Detroit to buildings intended to serve other industries. The modern, endless-chain system of assembly line production pioneered in automobile industry required large-area, single story plants. The use of reinforced concrete allowed designers to meet the auto plants' need for at least 30 feet of clear span inside their buildings. As early as 1929, the forerunner of the contemporary, air-conditioned, rectangular box factory had emerged.[17]

During World War II, security needs forced even more industries to adopt the windowless box as their favored factory style. In the post war years, changes in the orientation of machinery and production activities encouraged this trend. Both industrialists and designers came to accept horizontal factory design because horizontal technologies became much more efficient in comparison to vertical approaches to production. Horizontal designs also proved to be more practical in design terms as they allowed the engineer a freer hand in plant lay-out and kept intrusions in the work routine at a minimum.[18]

Technological improvements in packinghouse operations involved with increased mechanization of production further encouraged meat packinghouse owners and administrators specifically to favor the highly automated one-story structure for packinghouse designs. The line system of animal slaughter, as opposed to the booth system[19], applied the assembly line techniques of modern industry to the slaughter of animals. In this system each operation from shackling to boxing

for shipment is done by different workers or separate workers in separate parts of the slaughter house. The carcasses, as at the John Morrell & Company Ottumwa Plant (see below Meat Packing Operations as They Relate to Buildings 15 and 27b), are moved along hy means of overhead rails. The line system allows less highly trained workers to carry out processes and allows for a higher degree of mechanization than the booth system. The new technologies of mechanical knives, automated slicing and weighing, and mechanical hide skinners hecame increasingly common in line system meat packing facilities across the country. By the 1960s virtually all of the old, multi-story packinghouses of Chicago were quietly idled because of their out-dated design. AMK, however, continued to use such John Morrell & Company's structures in Ottumwa until 1973.[20]

The advancements in horizontal plant design and technology were only part of the equation that brought great change to the meat packing industry. Beginning in the 1950s a revolution in decentralization occurred that re-arranged the entire industry. New sleek and coldly technological plants became prominent parts of the rural landscape. Cheap land, greater access to raw materials, and a large pool of cheap labor facilitated this movement of plants from urban to largely rural areas.[21]

In addition to technological changes and the relocation of packing house operations, specialization of function and the changing character of the retail trade also worked to reshape the industry. In the late 1960s and early 1970s firms like Iowa Beef Producers and Wilson Foods developed the idea of marketing boxed meats. This innovation meant greater ease of production (fewer cuts), packaging (simple cardhoard boxes and clear plastic wrap), and distribution (large shipments of product to supermarket and chain warehouse cutting facilities).[22]

Another transition of sorts hegan in the 1940s and 1950s. This transition changed the way consumers hought meats. Custom shops (hutcher shops) began to lose their appeal as self-service meat isles became popular in supermarkets. In turn, supermarkets began to develop their own cutting facilities catering directly to local consumer needs. The production of hoxed meats referred to above fostered the development of this way of purchasing meat.[23]

DEVELOPMENT OF MEAT PACKING IN IOWA

In the state of Iowa, packinghouse operations evolved along lines similar to those detailed above for the Midwest as a whole. The earliest pork packing operations in the state sprouted along major waterways due to ease of transportation and access to ice. Des Moines, Keokuk, Burlington, and Dubuque were key pioneer packing points. In these cities local merchants assumed the role of meat packer out of necessity. Local farmers brought pork on the hoof, fully, or partially dressed and transacted their necessary husiness with merchants in these locales. With pork arriving in various stages of processing, the merchant was forced to set up shop as a meat packer and finish what some farmers had begun.[24]

The pioneer packing activities of early entrepreneurs were, of course, seasonal

in nature. The fall of the year brought hogs to merchants who then set up a crude packinghouse on a near-by river or stream. During the late fall and winter, transient workers killed the hogs and cut and cured the meat in low quality, greasy, dimly lit shacks.[25]

As railroads began lining the state, packing activities moved to interior points like Fort Dodge, Cedar Rapids, Atlantic, and Ottumwa. Here, in these locations, merchants carried on packing activities as their predecessors had in the pioneer period, with the exception that packers could take advantage of railroad transportation.[26]

The growth of the packing industry in Iowa was rapid. The ice technologies of the 1870s spurred on this growth, but of greater importance was the state's ability to produce hogs. By 1880, Iowa was the primary pork producer in the Midwest. Already, during the 1875/1876 packing season, it ranked fifth among Midwestern states in the number of packinghouse operations with 58.[27]

Statistics reveal the growth of the meat packing industry in Iowa. In 1928 meat packing was Iowa's largest industry. Twenty-three plants produced $214 million worth of products.[28] By 1941 Iowa ranked second nationally in meat packing and the industry was the state's third largest industrial employer.[29] In 1951 the state of Iowa led the nation in meat packing by handling 11.7% of all hogs, cattle, and sheep butchered nationally.[30]

By 1954 there were 43 meat packing plants in Iowa, 28, or more than half, of which employed 20 or more people.[31] The prospects for the industry looked so good during the 1950s that entrepreneurs flocked to it, opening 17 more small operations in the four short years between 1954 and 1958. By 1958 there were 60 packing plants in Iowa, nearly 50% more than four years before. However, only 29 of these, just one more than in 1954, employed more than 20 people.[32]

By 1963 there were so many meat packing plants in Iowa that the census divided them into two types, meat slaughtering plants and meat processing plants. Grouping these two categories together so the figures can be compared to those of the other years, there were 88 meat packing plants in Iowa, of which 39, or well less than half, employed more than 20 people.[33]

The continued growth in the numbers of meat packing operations in Iowa began to reverse itself in the late 1960s. In 1967, there were 66 meat packing plants in Iowa, down 22 from four years before. This shake out effected the small operators more than the large. For, there were still 38 meat packing plants employing more than 20 people in Iowa, just one less than four years before.[34]

By 1972, although there were now 77 meat packing plants in Iowa (11 more than four years before), the large operations were even more dominant. Fourty-three of these plants, or more than half, employed more than 20 people.[35] The John Morrell & Company operation in Ottumwa was one of these 43.

JOHN MORRELL & COMPANY'S OTTUMWA OPERATIONS

John Morrell & Company seems to typify meat packing as it developed in the Midwest during the last quarter of the 19th century and first half of the 20th. New packing and shipping techniques, new architectural technology, new livestock production, changes in eating and shopping habits of the consumers, and labor/management struggles all played a role in the rise and fall of John Morrell & Company in Ottumwa.

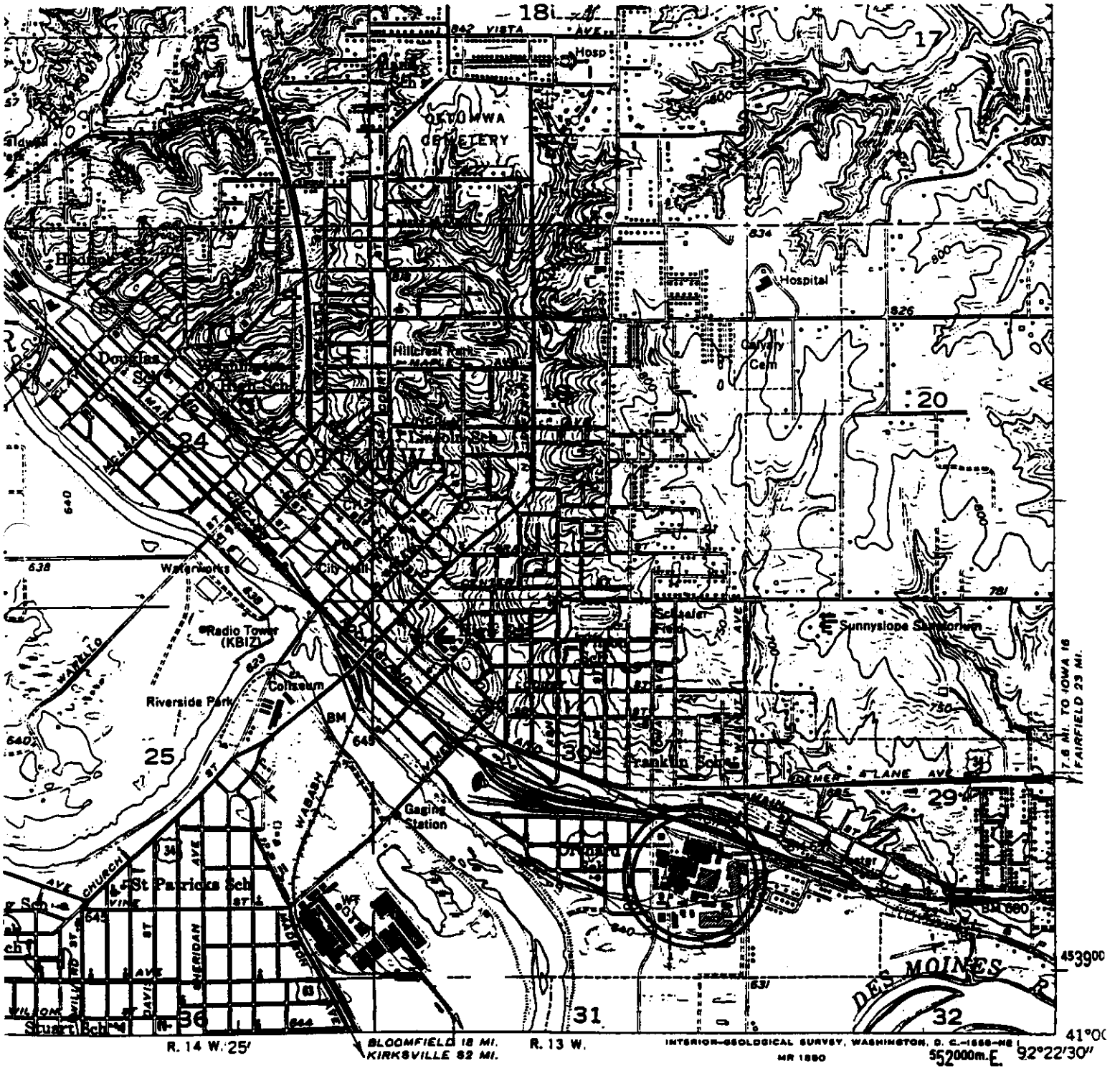
In the chill of the early morning of 13 November 1877, John Morrell & Company began their Ottumwa operations. The company began its killing, cutting, and curing operations in a "Pork House" leased from B. Ladd and Company, a meat packing firm which had been operating (under this or very similar names) in Ottumwa for nearly 20 years. In addition to the leased facilities (which it continued to occupy), John Morrell & Company built a commodious new building for operations in 1878. This first new Morrell building at the Ottumwa plant site measured 96' x 160' and was three stories in height.[36]

As the city of Ottumwa and John Morrell & Company entered the decades of the 1880s and 1890s, change greeted both. Packing operations pushed on and business steadily grew, bringing the company headquarters to Ottumwa from Chicago in 1888. Producing for both the domestic and English markets, Morrell & Company found intense competition within the state of Iowa. Newer packing points in Iowa cities and Armour's newfound success almost drove the company from Ottumwa.[37]

The decade of the 1890s seems to have been a trying time for the firm of John Morrell & Company. The great financial crisis of 1893 wrecked many a business. Fortunately, Thomas Dove (T.D.) Foster (see below Biographical Information), the head of the American operations of John Morrell, had some helpful connections to Chicago financiers that helped to sustain the business. A disastrous fire of the same year destroyed the building built in 1878, leaving Morrell with only ancillary structures.[38]

In fact, pressure was so great that Foster recommended closing the Ottumwa plant and moving operations to Memphis, Tennessee. Dispatching a letter of his intentions to his counterparts in the English headquarters at Liverpool, Foster hoped to receive the okay for the relocation. For unknown reasons, though, they did not approve the request. As a result of the decision to stay in Ottumwa, and the keen competition within the state, the company pursued a policy of plant modernization. Foster had been a proponent of modernization since the early days in Ottumwa. He reiterated his beliefs concerning modernization in the wake of the firm's decision to remain in the city.[39]

While the 1880s and 1890s were trying times for John Morrell & Company, the early years of the 20th century were much more congenial to the establishment. In 1903, its Yorkshire Creamery began operations as the company moved into butter production. Construction and improvements moved on at the Ottumwa site while a new plant began operation in Sioux Falls, South Dakota. The scope of Morrell



U.S.G.S. "SW/4 Ottumwa North [Iowa] 15' Quadrangle" map showing location of John Morrell & Company Meat Packing Plant in lower right corner.

& Company's business expanded significantly in 1909 when it built a beef processing center in Ottumwa. Previously, beef slaughter had been insignificant. By the time World War I began, Morrell & Company was thriving and would continue to do so during the war years.[40]

In the post World War I era the firm encountered some serious problems. However, this time the issue was not competition or some sort of physical catastrophe at the complex in Ottumwa. Labor disputes in the early 1920s proved to be ominous enough for the Governor of Iowa to call National Guard troops to the city. A one day walk-out in February of 1921 was a precursor to a massive three month strike in the fall of that same year. From early October to Christmas Eve, over 1,000 American Federation of Labor members were on strike at John Morrell & Company in Ottumwa. An eight cent per hour cut in pay precipitated the strike that turned violent in November. As Christmas approached and the use of Pinkertons and scab workers kept the plant operating, the strikers simply wore out.[41]

Having settled the strike at the Ottumwa plant, management embarked upon a policy to ensure stability among the workforce. Two things of key importance occurred in the aftermath of the strike. First, management disbanded the AFL leaving the workers without union protection. Second, the company followed a policy of employee appeasement in an effort to prevent future organization of laborers. The company formed plant councils, initiated vacation pay for qualified employees, made life insurance available to workers, placed an increased emphasis on the development of a community spirit among laborers, and created the Morrell Magazine to stimulate pleasant relations between management and labor.[42]

As the strike and associated tensions passed, the remaining years of the 1920s were more peaceful and constructive for Morrell & Company. In Ottumwa, the company built a new machine shop and cattle stockyards while the beef building underwent significant remodeling. On the national level Morrell opened a second New York City branch, purchased extensive packing facilities in Topeka, Kansas, and refurbished its Sioux Falls, South Dakota, and Minneapolis, Minnesota, complexes.[43]

The prosperity of the late 1920s began to pass as the nation headed into the Depression and the second World War. For John Morrell & Company these years held both promise and disappointment. No doubt the management interpreted the company's 1930s expansion as an indicator of future growth. In 1930, John Morrell & Company established a chemistry lab as research and development became essential to the company's success. The fall of 1932 brought the creation and production of Red Heart Dog Food. The company set up an experimental kitchen and rat laboratory in 1934 and 1935 respectively. As the dog food became a popular item, management established an entire production facility for it in Ottumwa during 1936.[44]

Cause for disillusionment among management and labor was also present during the Depression years. The Morrell Serum Company ceased operation in 1931 because it could no longer turn a profit. John Morrell & Company cut both the wages and

working hours of employees. By 1937 Morrell had reached its lowest point. Not only was the plant idled for approximately 5-6 weeks, the corporation posted its first loss since making public its stock in 1928.[45]

World War II stimulated business across the country and John Morrell was a part of this phenomenon. Production in Ottumwa skyrocketed during the war years as women and young men burst into the industrial work force. With price levels sealed by the Emergency Price Control Act, business carried on at stable, fairly profitable levels.[46]

All was not rosy in the heady days of victory celebrations and unbelievable expansion of production after the war ended. Once again Morrell & Company experienced difficulty with its employees in the form of labor disputes. The newly formed Local #32 came under the wings of the Congress of Industrial Organizations (CIO) in 1937. The minor strikes of 1938 and 1939 set the stage for a major strike in June of 1946.[47]

The labor disputes of the post World War II era may have served to distract the leadership of John Morrell & Company from the lucrative prospects of the post-war economy. In the immediate years after the war's end until the early 1970s, meat consumption on a per capita basis climbed steadily.[48] As this increase occurred, changes in the meat packing industry also took place. A shift in locations for meat packing plants, automated technologies, and mass production techniques altered the face of the industry. As early as December of 1963 there was talk about the out-dated nature of the Morrell's Ottumwa facility. In 1967, when AMK, apparently a subsidiary of United Brands conglomerate, purchased John Morrell & Company, President Eli Black of AMK charged that production planning at the Ottumwa complex had taken a backseat to the drive to realize handsome profits.[49] Plant inefficiencies were obvious: the vertical technologies used were passe, moving meat from building to building by truck and having each building have its own unique system of elevators and tramways were also old fashioned.[50]

Local P-1 of the Amalgamated Meat Cutters and Butcher Workmen of North America's records substantiate, in part, poor planning and profiteering. The 1968 AMK Planning Guide details "extensive" changes proposed for the Ottumwa plant. While its new owners "thoroughly remodeled" the cannery in 1971, the overwhelming majority of changes in the physical plant were merely cosmetic in nature. New lights, door replacement, painting of stairs and doors, and placement of stainless steel around support columns and on flat surfaces comprised the lion's share of the "remodeling" work.[51]

Examination of AMK's 1970 Modernization Study also illuminates the veracity of the assertions of technological backwardness. This study detailed the type and nature of the new machinery to be installed and laid out estimated costs for complete rehabilitation of the Morrell complex. The compilation is peculiarly silent regarding even projected completion dates for various renovations.[52]

Ironically, the company permanently shut down the Ottumwa John Morrell & Company

plant in June of 1973. John Morrell & Company, however, continued to exist. As of August 1991, the Delaware based corporation was no longer owned by AMK. Rather, John Morrell & Company was a subsidiary of the Chiquita Banana Company, which was in turn a subsidiary of an even larger conglomerate, American Financial Corporation.[53]

DEVELOPMENT OF THE PHYSICAL PLANT IN OTTUMWA

When, in 1877, John Morrell & Company began operations in Ottumwa, it operated out of facilities it leased from B. Ladd and Company. In 1878, Morrell & Company built a 96' x 160' building. The three-story building accommodated most of the Morrell operations during the early years of development in Ottumwa. However, the company continued to lease the B. Ladd and Company facilities as well. A few clearly subordinate, ancillary structures housed all the rest Morrell's Ottumwa operations.[54]

In 1880, John Morrell & Company built a 113' x 80' hog killing plant. It constructed the three or four-story building upon white oak timbers laid cross-ways over each other to serve as the footings. The builders placed masonry that tapered upward to a width of about two feet on these footings. All the walls were of brick while the floor joists and planking were white oak.[55]

In 1883, John Morrell & Company constructed Building 46. The company apparently demolished this 9,188 square foot building of brick and milled timber before 1968. The mechanical superintendent's map of the existing plant sketched in 1968 does not depict Building 46.[56]

Building 4, built in 1886, was a mammoth construction of nearly 128,000 square feet. AMK demolished the brick exterior and milled timber interior building in 1972 or 1973. At the time of demolition Building 4 housed the cafeteria and provided storage space for the plant.[57]

In the decade of the 1890s John Morrell & Company added to Building 13, the hog killing plant, until it measured 113' x 129'. By 1911, the company had made the decision to up-date the facility and work proceeded on the east portion and upper floors. Again, in 1922, the building underwent major changes. Contractors carefully removed all of the wood girders and support posts and replaced them with steel and concrete. The contractors actually built the "new" hog abattoir within the old while operations continued. Henschien & McLaren of Chicago engineered the reconstruction.[58]

After John Morrell & Company completed all the renovations, the hog abattoir towered five stories above the ground. The first floor housed the water equipment, tankage dryers, and catch basins. The second and third floors housed brine tanks and press equipment. On the fourth floor one found the chill room, lard rendering kettles, and by-products work space. The top floor contained another chill room and the hog kill and dress sections.[59]

The next major construction in the 1890s came in the wake of the 1893 fire that

destroyed the first Morrell built facility in Ottumwa. The brick exterior, milled timber interior design for Building 2, which replaced the burnt building, enclosed almost 95,000 square feet. AMK demolished it in 1972.[60]

The year 1897 brought a flurry of construction activity to the Ottumwa site of John Morrell & Company. All together, five new buildings appeared. Building 7, of brick exterior and milled timber interior design, enclosed 17,500 square feet. Apparently it was torn down before 1968 because the Planning Guide makes no mention of its existence. The company also built Buildings 16, 18, and 19 in 1897. The 3,000 square foot Building 16 housed the paint shop and was still extant in 1968. The dry salt shop, located in Building 18, was a 17,000 square foot building. Morrell & Company's management established a hair house in the 10,500 square foot building.[61]

Records indicating construction dates for Buildings 5 and 17 reveal that the company erected both in 1907. Building 5 was a brick exterior, milled timber interior structure of 61,200 square feet. In 1968 it housed canning operations and storage. Building 17, also a brick exterior and milled timber interior design, provided 6,800 square feet of storage for ice.[62]

In 1918 John Morrell & Company constructed Building 38. This 22,000 square foot storage facility was of brick exterior and milled timber interior design.[63]

One of the central and most attractive features of Morrell's Ottumwa complex is Building 49, the existing office building. Henschien & McLaren designed the 102' x 78' construct and Wells Brothers of Chicago built it. The traffic, purchasing, cashier's, and meat inspector's departments were on the first floor. The general and executive offices, as well as the mail and mimeograph rooms were on the second floor. The third floor housed the cafeteria and the canned foods, advertising, creamery, and filing departments.[64]

The completion of the new general offices building in 1924 meant the end of the line for its antecedent. The company had built the old two-story 36' x 50' building after the fire of 1893 and added to it in 1900 and 1908. This building had, in turn, replaced the original office building that was near Buildings 1 and 2. That 1878 building was a modest 32 feet square and rose only two stories above the ground.[65]

Late in the summer of 1924 work began on a new cannery, apparently Building 69. The new eight-story building measured 80' x 68' and adjoined the sausage and shipping departments. To build the new facility, the company had to raze the old cannery/smokehouse. The old building had humble origins. A 16' square two-story construct erected in 1883, John Morrell & Company added to it in 1893, 1896, and 1907. After the company completed all this work , the building stood six stories tall, housed four smokehouses, had a 32' x 56' x four-story ell addition, and contained work rooms for the smoked meat and sausage departments.[66]

Morrell completed several smaller yet significant projects in late 1925 and 1926. It completed a guard house to the rear of the general offices building

at the main entrance in 1925.[67] Contractors enclosed the docks on Building 27A/B in the spring of 1926.[68] Finally, the builders finished the steel and concrete bridges between Buildings 2 and 4 in the fall of 1926.[69]

The one hundredth anniversary of the founding of Morrell & Company in 1927 was a grand occasion for employees and management alike. On the bright, crisp afternoon of October 19, 1927, a crowd of 300 people gathered outside the new Morrell Centennial Gate at the plant's main entrance. Workers, who had been idle since noon, gathered around three o'clock satisfied with a full day's pay for only half a day's work. T.H. Foster, one of T.D. Foster's four sons, presided over the commemorative occasion while Raymond McNally (Vice President of the National Bank of the Republic of Chicago) served as the keynote speaker. To mark this historic moment, Morrell & Company placed a bronze placard on the Centennial Gate. Citizens of Ottumwa, also wishing to note the occasion, affixed a bronze tablet to the gate.[70]

During this same year John Morrell & Company undertook two additional projects that were of considerable significance to the plant's operation. It constructed Building 73, the machine shop, during the spring of the year. Large windows lining the north and south sides amply lit the 200' x 100' steel and brick facility. Contractors also finished a new cattle stockyards in 1927. The wood frame structure consisted of over 50 holding pens for stock.[71]

Less than one year later Morrell & Company expanded the beef plant operations considerably. They enlarged Buildings 10 and 11 and renumbered the substantial addition to 11, designated Building 35. The remodeling work doubled the size of the beef facility.[72]

The newly remodeled facilities meant a reorganization of the operations within the beef house. Building 10 served as the abattoir, with the kill taking place on the third floor. The by-products and the trimming departments were below on the second floor. The first floor, actually the basement, was exclusively for hide curing. Building 11/35 was largely warehouse space. The company reserved the fourth floor for storage while below was the beef cooler. Cooler space and the cutting department occupied the second floor. As in Building 10, the plant used the first floor for hide curing.[73]

The last recorded construction of the 1920s was a luxurious "hog hotel." The new holding facility for pigs stood six stories high and measured 60' x 140'. The contractor poured concrete columns and floors, but built the walls of lightweight steel panels and hinged windows. The new hotel replaced a wood frame construction of similar proportions.[74]

Over one year later construction crews were again busy at their appointed tasks. They tore down the old office building down in November after it had been empty for six years. December saw the planning of an addition to the smokehouse that would be completed shortly. The great development at the Ottumwa John Morrell complex was the completion of Building 15. The brick and reinforced concrete storage facility measured 160' x 120' and stood five stories high. Architect

H. Peter Henschien collahorated on the project with the Cedar Rapids firm of Stark and Company.[75]

The fifth floor of Building 15 was divided in half, with the east half open for washing equipment and the west portion serving as the cutting room for the hog kill operation. Immediately helow the cutting floor were facilities for trimming and curing activities as well as freezers and the green grading room.[76]

Construction activity filled the period heginning February 1935 and running through July of 1937 at the Morrell complex. Arthur Neumann and Sons of Des Moines installed a new boiler. This same firm had erected the smokehouse addition in 1930 and the additions to Building 5 and 5A. By March of 1935 there were 28 new garages completed on the grounds of the plant. Less than a year later the company opened the dog biscuit hakery on the second floor of Building 8.[77]

More significant constructions also occurred in this period. The first was the completion of a three-story addition to Building 15. Measuring 60' x 160', the new space was given completely to cold storage pork. Once again H.P. Henschien served as Morrell & Company's architect.[78]

The second major construction activity took place at the heef plant. The company clearly added to this plant, although researchers have not yet discerned the number of the huilding involved. Included in the addition were rooms for the sheep kill crew, the sheep hy-products department, a heef cutting room, cooler, and a cafeteria.[79]

The year 1939 marked the final major construction at the Ottumwa facility for the decade. In Fehruary of that year Henschien, Evards, and Crombie designed a new huilding to be completed on the site of old Building 1. The new building, erected by Stark Building Company of Cedar Rapids, was of concrete and steel materials. Completed in July of the following year, the eight-story, 160' x 128' huilding was a refrigeration unit.[80]

The last major project undertaken in Ottumwa by John Morrell & Company was completed in June 1941. The completion of Building 27B made available to the company more smokehouses, room for processing smoked meats, and storage space. the six-story building of brick and concrete includes glass block and steel window frames for lighting. The new facility measured 120' x 160' with a wing 45' x 20'.[81]

THE FATE OF THE OTTUMWA PLANT SINCE 1971

Physically the John Morrell & Company meat packing plant has changed greatly in the past two decades. Even hefore the closing of the plant, Morrell and/or AMK had demolished several of the old buildings. After its closing in 1973 Omeco-St. John Company, a Nehraska corporation, hought the plant. In 1977, Omeco-St. John sold it to NFK, Inc., another Nehraska corporation. NFK only owned the plant for a short time. Since then, the huildings have heen sold off piecemeal, with several of them having numerous owners over the past 14 years.

The test for integrity that is usually used for historic resources is "Would the owner during the period of significance recognize the property?' For much of the meat packing plant the answer would have to be "No." Whole areas of the plant are gone: the heating plant is covered with weeds; the entire beef operation has been razed; the "hog hotel" and slaughter house are gone; the stockyards contain trucks, tractors, and products for recycling; the railroad tracks have been pulled up inside the plant as well as north of the complex where only two sets of tracks remain.

Of the eighteen buildings which were extant in April 1991, it appears that only nine are relatively unaltered: Buildings 48 (offices), 49 (Executive Office Building), the Lab and 14 (pickle), 40 (lard storage), 39 (creamery), 73 (machine shop), 28 (car repair), and 122 (domestic well). Of these, only Building 49 was endangered at that time.

It is the major Morrell Buildings that are both endangered and have been altered most extensively. These have been changed by additions, closing-in of doors and/or windows, removal of some sections, and most recently by neglect. These major buildings are the ones designed by Henschien alone, Henschien & McLaren, or Henschien, Evards and Crombie between 1922 and 1941. These are the buildings with potentially the greatest architectural significance. The three of them which may have the individual significance necessary for National Register eligibility are the ones being documented here:

49 Executive Office Building
27B Pork processing, sausage and ham smoke houses, distribution
15 hog cutting, trimming, green grading, cold storage, freezer

Only the Executive Office Building is unaltered by the removal of adjacent buildings, and/or the addition of intrusive wings. It is a key structure.

MEAT PACKING OPERATIONS AS THEY RELATE TO BUILDINGS 15 AND 27B

Both Building 15 and Building 27B were part of the pork processing operation. From an operations point of view, this process began with the hogs' arrival at the plant. Hogs entering the plant went to the Hog and Cattle Sheds (no longer extant) which were just east of Building 15 (see drawing 1 of this documentation).

From there they moved south into the six-story Hog Hotel (no longer extant).

From the sixth floor of the Hog Hotel they were herded west up the elevated inclined hog ramp-bridge to the fifth or top floor of Building 13 (no longer extant) where the hogs were killed. Pens for storage of the animals as they arrived from the ramp occupied the east end of this killing floor. From there the hogs were driven into the shackling pens where the left hind leg of the live animals were shackled to the hog wheel, a mechanical hoisting device. The wheel discharged the hogs to the bleeding rail in one jerkless and jarless operation. At this point the hogs were hanging, heads down, suspended from the shackles which hung in turn from the bleeding rail. The hogs slid past the operators

doing the knocking, the stunning of the animals, and the sticking, or actual killing, in this position. As the hogs arrived at his station the first operator stopped each hog and stunned it, then the next operator stopped and stuck the animal with a special tool called a hog-sticker, being sure to sever the carotid artery without shoulder-sticking. (Shoulder sticking results in a hemorrhage of the shoulder arteries, a condition which ruins the grade of several shoulder cuts.) Between the sticking pen and the scalding vat, the hogs were suspended long enough over the bleeding pan for all the blood to leave the body and the animal to die completely. This took from two to six minutes depending on how well the animal was stuck. The weight of liquid blood in the average hog was 10 pounds. The carcasses were then dropped into a scalding vat. Scalding loosened the hog hair which was then removed by a mechanical scrapping device. Workers removed the carcasses from the mechanical scrapper and put them on the gambrelling table where any additional scrapping was done. The workers then washed and gambrelled them, that is, the operators attached a metal rod to the hind leg shanks of the hogs for suspension from tracks or hooks, and hung them on the dressing rails. After the carcasses were hung on the dressing rails, the workers shaved the insides of the hams, the shoulders, and the jowl with a razor-sharp butcher knife to produce an absolutely clean carcass. The animal's belly was then split and the carcass eviscerated. The butchers dropped the complete pluck of intestines with the edible offal and other byproducts going to Building 8 and the inedible offal and other byproducts going to Building 9 (no longer extant). The dressing rail carried the ready to split carcasses to the sixth or top floor of Building 3 (no longer extant). By Federal law no edible product could be conveyed through or stored in rooms which contained any inedible products.[82]

Killing was done in a building separate from where the products were manufactured, cured and stored in order to save money.[83] Building 3 was the Hog Dressing House. The gambrelled hogs were dressed on the fifth or top floor of Building 3. This floor had very high ceilings. The first step in splitting the hog carcasses was to saw through the aitch or rump bone. The meat cutters finished the rest of the splitting with pork splitting cleavers, cutting down the center of the backbone to the last vertebrae next to the head. The hog's head was probably not removed, but left on to hold the carcass together while it was in the chill room.

From the top floor of Building 3 the dressed carcasses moved across a gangway to the chill room in Building 1. Hog carcasses were chilled whole, not broken into two half carcasses, as was done with beef, until the carcass was ready to be divided into hams, shoulders, loins and other primal cuts. Hog carcasses were also not shrouded as was the case with beef. The hog carcasses remained in the chill room for from 20 to 24 hours. They were then ready to be cut up. Failure to chill carcasses properly was the reason for more ham losses in cure than any other single cause. If not thoroughly chilled, hams sour, swell up, and are worthless when smoked. Hog coolers were divided into sections or tunnels by placing partitions between the columns which held up the building. These were generally spaced 16 feet on centers which provided room in each cooler for six hanging rails.

From the Building 1 chill room operators moved the chilled carcasses to the high ceilinged sixth, or top, floor of the west half of Building 15, that is, to the hog cutting room. This sixth floor hog cutting room was not refrigerated except by the cold air which leaked through from the cold storage in Building 1 which adjoined it on the west and the cold storage in the east half of Building 15 which adjoined it on the east. In the hog cutting room the hams were cut off and thrown down chutes to the fifth floor where they were trimmed. The rest of the hog was carried to chopping blocks in the sixth floor cutting room and cut up. The head was removed. The shoulders and sides then moved onto tables where they were made into tbeir respective cuts, which were dropped to the fifth floor trimming room. An overhead rail ran alongside the cutting tables for hanging off fresh pork cuts, which were run into coolers. The trimmings for sausage meats moved into the top or fifth floor of Building 27 where the meat was boned, ground, quick cured and stuffed into casings.

In the fifth floor trimming room in Building 15 butchers trimmed the hams and other cuts before dropping them down chutes to the fourth floor green grading room. Once graded those destined for dry salt curing (also known as country style curing) went through chutes to the third floors of Building 15. There workers in the east half of the building rubbed them thoroughly with a mixture of salt, granulated sugar and saltpeter and placed them in tbe cooler on the west side of the building for five or six days. Then, the workers removed the hams from the third floor cooler, moved them to the east half of the second floor where they repeated the salting process. The hams were then placed in the coolers on the second floor of Building 15. At the end of five or six more days, the process was repeated again with the hams ending up in the large cooler extending the entire east-west width of Building 15. The completion of tbe cure was figured by allowing two days for each pound of ham, based on the average weight of the ham. A 12-pound ham would require 24 additional days after the final salting, or a total of 36 days. After this tbe hams were soaked for 30 minutes to an hour, depending on the size of the ham. After air drying, workers placed the hams in the ham smoke houses in Building 27A.[84]

Bacon could also be dry cured. Dry cured bacon was made in special boxes that usually beld from 350 to 600 pounds of raw meat. For every hundred pounds of meat, four pounds of curing mixture were required. The mixture was rubbed in thoroughly on sides, edges and ends. After the pork had also been rubbed, packers "packed in the box" skin side down. After each layer was put into tbe box, the packers pressed it down so firmly that there was no air space between layers. They filled the corners and the spaces between eacb piece witb pork trimmings, jowls, and other small cuts. They placed tbe final layer in skin side up. When the box was filled, the packers sprinkled a liberal quantity of the curing mixture over the top layer and put the lid on. The tighter the lid was pressed the better the cure was. The packed boxes were then put in the cooler for 20 to 35 days. Then the bacon is removed from the boxes, soaked in cold water from one to two hours, and then scrubbed in very hot water. Following this, the bacon was hung on bacon hooks and allowed to air dry.[85]

Those hams not destined for dry salt curing moved from Building 15's fourth floor grading room, across an elevated bridge to the fourth floor of Building 27 to the ham cooking room on the west side of the fourth floor of Building 27B or to the ham smoke house in Building 27A. The finished hams which had heen cooked on the west side of the fourth floor of Building 27B were hoxed and stored on the east side of that floor.

The sausages stuffed on the fifth floor of Building 27 which were to be smoked (and that was most of them) moved into the sausage smoke houses on the fifth floor of Building 27B. However, they too had to cool for two to four days between stuffing and smoking.

Meats were preserved and made more palatable by being exposed for a certain length of time to the smoke from wood fires. Link sausages were hung on cages which were suspended from overhead rails placed along the stuffing tahles on the fifth floor of Building 27. These cages moved along the rail into the single story smoke house in Building 27B. Sausages could not he smoked with ham or bacon. The flavor of each would have been lost to the detriment of all.

From sausage smoke houses of the fifth floor of Building 27B the smoked sausages went to the fourth floor cooking vats or steam cabinets. From there they went to the third floor where the smoked meat cooling room was located. They then moved to the assembling and shipping hox room on the second ~~floor~~ of Building 27B. From there they went to the shipping dock on the west facade of Building 27B.

The first floor of Building 27B was simply hox and supply storage and the ice truck depot. The sixth floor was also a supply storage and carton facility, while the tower was just storage.

MORRELL'S IMPACT ON THE COMMUNITY

John Morrell & Company played a significant role in the development of the city of Ottumwa from the arrival of the company in 1877 through the closing of the plant in 1973. At one time Morrell was the community's largest employer, with over 3,000 people working at the plant.

In addition to its ohvious role in Ottumwa's economic and civic growth, the company also influenced residential development. The eastern section of Ottumwa was developed to house the Morrell workers, provide them with goods and services, and educate their children. It would he difficult to identify an area or activity in Ottumwa which was not, in some way, shaped hy John Morrell & Company and/or its workers. In 1880, 93% of all Morrell employees lived in Wards One and Two (the Morrell complex is located in Ward One with Ward Two adjacent to it). At that time roughly half of the city's total population lived in these same wards.[86]

The meat packing plant's impact on patterns of residential development continued as the city entered the 20th century. Of Morrell's 1,130 employees, 85% lived

in Wards One, Two, and Five in 1900. The concentration of laborers in these wards is illuminated by the fact that Morrell employed 40% of all laborers in Ottumwa at this time. Approximately 46% of all Ottumwans lived in these same three wards.

Fifteen years later the concentration of Morrell and Company workers in these three wards remained at levels comparable to the 1900 figures. Eighty two percent of Morrell's 1300 employees lived in Wards One, Two, and Five. The total population of these three wards was 7,800 in 1915.

This residential development can be easily seen today. West of the Morrell main gate groups of small houses line Hayne and Orchard streets. Originally these cottages filled every lot, but many have been torn down over the years.

Immediately north of the packing plant, small cottages line Mable Street which runs parallel to the railroad tracks. These houses are almost all of wood frame construction. Many, perhaps most, have been altered over the years with new siding and porches or decks. So many houses were built in this area south of Main Street that around 1900 that the city had to construct a new elementary school building to educate the neighborhood children.

Crossing Main Street and heading north up the Iowa Avenue hill there are larger houses. Development in this area started in the early 1890s. Most of these are two-story gable roof houses with porches. They share a common set back from the street, and all are of wood frame construction. Moving a block east or west of Iowa Avenue there are neighborhoods of small houses again. The East End Presbyterian Church is at the top of this hill, at the intersection with Second Street.

A small business district grew up around the corner of Main and Iowa, just two blocks north of the main gate. In 1917 the district included a drug store, two groceries, a lumberyard, fire station, feed warehouse, tin shop, barber, and two cobblers. By 1925 an oil station had replaced one of the cobblers' shops.

The residential impact of the plant spread far beyond the immediate neighborhoods. The Foster and Morrell family residences also played an important role in the community. Thomas Dove Foster (1847 - 1915, see Biographical Information below) was the first generation of the family to live in Ottumwa. He built a home in 1893 at the corner of 5th and Market, on the Bluff, as it was called. The next generation, who built their homes in the 1920s and 30s, continued to live in prestigious neighborhoods. However, they built large architect-designed houses.

This generation included not only Thomas Dove Foster's children, but also those of his two cousins, George Morrell (1839 - 1893) and John Morrell (1845 - 1905).

In the mid-1920s George Foster Morrell, son of T.D. Foster's cousin George Morrell, had a fine brick Tudor Revival house with slate roof built on the lot east of T.D. Foster. At about the same time George M. Foster, one of T.D.

Foster's four sons, had a brick and half-timber Tudor built a block north at the corner of 6th and market. The architectural firm of Tinsley, McBroom and Higgins of Des Moines designed both of these houses.

In the mid-1930s Robert Foster, a member of the third generation of Morrells and Fosters to live in Ottumwa, started construction of a large brick Chateauesque residence on North Elm. Before he could finish it the company transferred him to the Sioux Falls plant, and his father, T. Henry Foster (another of T.D. Foster's sons and a brother to George M. Foster), took over the house. He had the architects (Tinsley, McBroom and Higgins) add a large library to the south end. With its rounded tower and huge lawn, it looks very much like the castle many local people call it. In addition to, and perhaps because of these Foster and Morrell residences, Tinsley, McBroom & Higgins designed at least three other fine brick residences in Ottumwa during the 1930s. Between them, John Morrell & Company and the Morrell/Foster families probably commissioned more architect designed houses and buildings during the 1920s and '30s than the rest of the community combined.

It is interesting that the architect-designed industrial buildings of the Morrell plant did not appear to influence the design of other buildings in Ottumwa. The other large industry is Dain Manufacturing (John Deere Ottumwa Works). From the earliest buildings, c. 1900, the Deere plant has consisted almost totally of single story structures. The only exception appears to be the heating plant. Other industry in Ottumwa was relatively small, and could easily operate out of two and three-story masonry buildings. There was no need to deal with steel posts, beams and trusses, let alone reinforced concrete columns with mushroom capitals. The only tall buildings in the downtown area (more than three stories) are the Hotel Ottumwa from 1916, a Proudfoot, Bird & Rawson design, and the Hofmann Building from 1941 (another Proudfoot et al design). The hotel had a steel frame with brick curtain walls, concrete floors and roof. The Hofmann Building features a concrete frame, floors and roof with 12" tile brick faced curtain walls. Both buildings are six stories.

There is one other unusual aspect of the impact, or lack of impact, of the Morrell plant. It is common for a large business or industry to spawn small ancillary businesses. However, the Morrell plant was almost totally self-sufficient. There was no need for a blacksmith or cooper to open a shop across the street from the plant because the packing house had everything it needed.

BIOGRAPHICAL INFORMATION

Hans Peter Henschien (1881-1959)

H. Peter Henschien was the principal architect for the three buildings documented in this project. A Chicago architect, he designed mainly large meat packing plants in the United States and foreign countries. In 1915, when he was 34 years old and specializing in packing plants, cold storage buildings, and ice manufacturing plants in a one man practice on West Van Buren Street in Chicago,

Henschien wrote "the book" on designing and building such facilities. His Packing House and Cold Storage Construction was a general reference work used both by practicing architects and engineers and by university students. It reflected detailed knowledge of government regulations and the technological improvements in refrigeration which had been made in the early part of the 20th century.[89] This text was already seven years old, however, by the time Henschien did his first known work at John Morrell & Company's Ottumwa plant. As part of the Chicago architectural partnership, Henschien & McLaren, the 41 year old Henschien engineered the reconstruction of Morrell's Ottumwa hog abattoir (Building 13 - no longer extant) in 1922.[90]

Shortly thereafter Henschien designed the first of the three buildings documented here: Building 49 (Executive Office Building). Wells Brothers of Chicago completed building it in 1924 from plans drawn by Henschien & McLaren. The firm of Henschien & McLaren had offices on Prairie Avenue. They specialized in the design of meat packing plants and were responsible for several other industrial buildings in Ottumwa. Henschien was still part of this firm in 1932 when he collaborated on the Building 15 project with the Cedar Rapids, Iowa, firm of Stark and Company. Originally built as a five-story building, John Morrell & Company added three stories to Building 15 between 1935 and 1937. Henschien served as the company's architect for this work also.[91]

By 1939, the firm of Henschien & McLaren no longer existed. The Chicago firm of Henschien, Evards & Crombie designed a new eight-story refrigeration building (not being documented here) to be erected on the site of old Building 1 in February of that year. The fact that Henschien, by then 58 years old, did not totally realign all his business relationships that year is reflected in the fact that Stark and Company built this building as it had Building 15 in 1932. Henschien, Evards & Crombie continued to exist into the 1940s. It drew the plans from which John Morrell & Company constructed its last major project in Ottumwa, Building 27B. Henschien was 60 when this building was completed in 1941. He died at age 77 in Chicago.[92]

George Morrell (1778-1848)

George Morrell began the first Morrell family business in Bradford (West Yorkshire County), England in 1827. Prior to that George Morrell, his wife, Elizabeth Dove Morrell, and their seven children had lived in the kind of poverty typical of many nineteenth century working class families in England, migrating from town to town and job to job in an effort to eke out a meager living in an uncertain job market. By the age of 49, the highest position George Morrell had attained was his present one as a wool-comber in the Bradford mill.[93]

Their fortunes changed however, when, in 1827, George and Elizabeth Morrell inherited approximately $300 from Elizabeth's uncle, Robert Hubie. After Morrell paid off a family debt, he used the remainder to invest in a cargo of his wife's favorite fruit -- oranges. He sold his newly purchased produce on the streets of Bradford. Immediately Morrell re-invested his profits in similar produce and began business as a fruit and green grocery merchant in the public market stalls

of Bradford. Three years later Morrell added provisions to his stock of fruits and continued his thriving business. Amongst the sundry provisions sold by him were exquisitely smoked hams and bacon. Soon the small business gained a reputation for its cured meats. In 1837 this favorable reputation led Morrell to rent an entire building on Market Street in Bradford in which to transact his business, dropped green groceries from his line, and added flour and other articles. As part of this revamping of the business the now 59 year old George Morrell reorganized his business as a partnership under the name of George Morrell and Sons. The Morrell Company had been born.[34]

As the decade of the 1830s waned, George Morrell and Sons prospered while John Morrell -- the third of George and Elizabeth Morrell's seven children, now himself a married man in his late twenties -- assumed a larger and larger role in the running of the business. When, in 1842 a financial crisis struck the firm the by then deaf, 64 year old George Morrell surrendered control of the firm to his son, John, and retired with his wife to an abbey in Selby, England, where he lived until his death six years later (1848). After his death, Elizabeth moved back to Bradford where she lived with her only daughter Mary Morrell Foster and her family until her death in 1855 at the age of 80.[35]

With the change in leadership came a change in the business's name. After 1842 the firm was called John Morrell & Company.[36]

John Morrell (1811 - 1891)

John Morrell was born in Hull (Humberside County), England, a port on the North Sea. By the time he was ten years old he was already working around the docks in Hull, collecting rags and iron which he re-sold to junk dealers. When his father started the family business in 1827, the then 16 year old John had been working in the woolen mill at Bradford alongside his father, his five brothers and his sister for some time. He continued at the mill, becoming a bobbin maker before joining his father's business. In 1835, at the age of 24, John Morrell married Margaret Ackroyd. Although they had no children themselves, John and Margaret Morrell came to treat his nieces and nephews as their children, even to the point of having some of them live with them for years on end.[37]

In 1837, John Morrell became part of the new partnership, George Morrell and Sons; however, he did not stay with it long. He left and started his own business while his father carried on the old one. But, this did not last long either before he re-entered his father's partnership. In 1842, when a financial crisis hit the family business, the then 31 year old entrepreneur took over control of the family business and changed its name to John Morrell & Company. John Morrell was the sole owner of this firm. Unlike his father he had no partners. He pensioned off his father and mother and kept at least three of his brothers (Robert, Thomas, and George) on as employees not partners. However, in 1857, Robert Morrell, who had been running the John Morrell & Company retail shop in Bradford, left his brother's firm and opened his own shop. This left only three of the seven Morrell children still directly involved with the family business with only one of them, John, a proprietor.[38]

John Morrell expanded the business in the years immediately following his assumption of leadership. He discontinued the sale of flour and added wholesale groceries to his line of provisions. He closed one of the firm's two retail outlets in Bradford, the one his wife had been managing for several years, not the one he had been managing. His brother Robert took over management of this shop for him. He also opened an office and added traveling salesmen and an office staff to his operations.

As early as 1846, Morrell began considering setting up his own operation in Ireland because he was having a hard time getting enough goods locally or through other traders to supply the demands of his customers in Bradford. After a brief foray into the quality grocery business with a partner, George Isitt, John Morrell reverted to the sole proprietorship mode of business he had been so successful with up to that point and set out in earnest to secure an adequate source of supply of the goods he had been selling for nearly a decade.[100]

In the early 1850s, John Morrell & Company opened a retail grocery shop, a slaughterhouse and a curing plant in Castlecomer (Kilkenny County), Ireland. Soon, Morrell's chief of operations in Ireland, Thomas Atkinson, was buying butter, eggs, and poultry for shipment to England and carrying on some pig slaughtering also for export to England. By the late 1850s, Atkinson was also selling American bacon, flour, meal and groceries to the Irish. Encouraged by this success, in 1859, Morrell sent Atkinson on to open another branch a few miles from Castlecomer in Kilkenny (Kilkenny County) and enticed his brother-in-law, William Foster, to rejoin the family firm by offering him Atkinson's place at Castlecomer. Foster had been an employee of first George Morrell and Sons and then John Morrell & Company from 1840 until 1845. Upon his marriage to Mary Morrell, George and Elizabeth Morrell's fourth child and only daughter, William Foster left the Morrell family business and opened his own grocery store in Bradford. There was much more autonomy inherent in managing a complete John Morrell & Company operation across the Irish Sea from John Morrell than in serving as the head counter-man at one of the family's retail outlets in Bradford, the position William Foster had held when he was last employed in the Morrell family business 14 years before his move to Ireland.[101]

John Morrell & Company flourished for three or four years in both Ireland and England, until American meat began arriving in England in large quantities and at low prices. Using the livestock available to them in Ireland, neither Atkinson nor Foster could make the products of John Morrell & Company's Irish operations compete with these American imports. Quick to see what the future held and cut his loses, John Morrell sold his Castlecomer operation to William Foster in 1862 and closed the Kilkenny branch in 1864. That same year John Morrell began importing meat from the United States to England. John Morrell & Company opened a business office in New York City under its proven point man, Thomas Atkinson, in 1864. Four years later Morrell & Company opened a branch office in London (Ontario), Canada, another North American meat center. Shortly thereafter, in 1871, Morrell & Company began extensive operations in Chicago, but this expansion was cut short in May 1872 when headquarters staff, located

since 1860 in Liverpool -- the major Irish Sea port in northern England -- rather than Bradford in the interior of West Yorkshire, discovered that Thomas Atkinson, the head of all American and Canadian operations and a 17 year veteran with John Morrell & Company, had been routinely embezzling from the firm for several years. When Atkinson's second in command for the last 13 of those years in both Ireland and North America resigned within months of his mentor's departure, John Morrell named his nephew and next most senior employee in North America, Thomas Dove Foster, chairman of John Morrell & Company's Canadian-American operations. T.D., by 1872 a 25 year old married man with six years experience with the company behind him, had worked for John Morrell & Company in Liverpool for three years before transferring to New York in 1868.[102]

Thomas Dove Foster (1847-1915)

Thomas Dove Foster was born in Bradford, the oldest child of William and Mary Morrell Foster's four children. However, only two of these children survived to adulthood: T.D., as he became known in later life, and Ann Elizabeth who later married a John Morrell & Company manager, Alfred Illingworth. William Foster had gotten to know his future wife, Mary Morrell, when he went to work for George Morrell and Sons in 1840. Because he was both still a bachelor and an orphan, the then 35 year old Foster moved in with George and Elizabeth Morrell when he went to work for their family's firm. Mary Morrell was still working at the mills in Bradford and still living with her parents at this time. She only left her job at the mills when she married Foster in 1845. As noted above, upon their marriage the then 40 year old Foster left John Morrell & Company and open his own grocery store in Bradford. His growing family, which included not only he and his wife and their four children as they were born but also from 1848 to 1855 his widowed mother-in-law and her sister, lived in a house associated with the store for 14 years.[103]

The Fosters only moved in 1859 when William Foster assumed charge of John Morrell & Company's new branch office and plant in Castlecomer. T.D. Foster was a 12 year old school boy when they made this move and 15 when his father bought the Castlecomer operation from John Morrell in 1862. T.D. Foster was only able to continue his school work in Ireland for a year after this purchase before his father needed the 16 year old's help in the business. T.D. Foster did some work in the store, but spent more time traveling through the countryside helping his father's buyer buy pigs for live shipment to England and others for slaughter and local sale or shipment to England as bacon.[104]

While working for his father in Castlecomer, the young Foster saw a workman unloading a shipment of bacon from the United States. Before him passed a crate marked "Mitchell, Ladd, and Co., Ottumwa, Iowa, USA." The novelty and exotic qualities of the far away city and its name captured the 16 year-old T.D. Foster. The events of this morning remained firmly ensconced in the young man's mind as he matured into a competent and adventurous businessman.[105]

When his father sold his Castlecomer business in 1865, T.D. Foster returned to England along with the rest of his family. Within the year he went to work for

his uncle, John Morrell, as an intaking stock clerk in Liverpool. Three years later, in 1868, T.D. Foster transferred to John Morrell & Company's New York office as a clerk. Four months after his arrival, Humphrey Bell, the manager of the New York office, assumed charge of the John Morrell & Company packing house in London, Canada, and Foster became John Morrell & Company's New York Office manager. This position was not John Morrell & Company's top New York position. That position was held by Thomas Atkinson who was in charge of all of John Morrell & Company's North American operations.

It was at Atkinsons's home that the 21 year old Foster met Eliza Matilda Thompson. Having arrived from Waterford, Ireland, with her parents five years earlier, she was employed as a governess in Atkinson's home. In 1869, less than a year after his arrival in New York, T.D. Foster became engaged to Eliza Thompson. Before they could be married, however, Morrell transferred Foster to London, Canada. He only stayed there a year, too, from 1870 to 1871. In 1871, the company sent Foster to Chicago to open another plant. In 1872, after John Morrell learned about Thomas Atkinson's embezzling and Humphrey Bell resigned to go into business for himself, Morrell named his 25 year old nephew, T.D. Foster, chairman of John Morrell & Company's Canadian-American operations. Prior to his next move back to London, Canada, Thomas Dove Foster and Eliza Matilda were married in Brooklyn, New York.[106]

Because he knew more about buying pigs and processing pork than any other part of the business, Foster focused Morrell's North American operations on bacon and dropped the other products which Atkinson had been developing. This focus lead Foster to conclude that Morrell's North American operations should be moved as close as possible to the center of hog production on the continent, that is, to the American midwest. In 1874, while on a trip to Ireland and England, T.D. Foster took the opportunity to discuss this idea with John Morrell. Seeing the wisdom of the young Foster's plan, the 63 year old Morrell instructed Foster to begin looking for a site as soon as possible. Crossing the Atlantic on his way back to Canada to begin the search for site for a new midwestern Morrell & Company complex, Foster ran into the name Ottumwa, Iowa, again. The name of Ottumwa citizen Capt. J.G. Hutchinson was on the ship's passenger list. Foster called upon Hutchinson and the two struck up a friendship. Later in the year, Foster had the opportunity to revitalize the friendship by visiting Hutchinson in Ottumwa while on his trip through the Midwest in search of the a new complex site.[107]

After completing the trip that included stops in numerous Midwestern cities, Foster decided upon Ottumwa as the location for the company's new packing plant. The rational behind his decision reflects Foster's good business sense. He stated, "I chose Ottumwa because of the railroad facilities, the abundant water supply, the proximity to raw product, the natural beauty of the city, and the friendliness of the people, I never regretted the choice."[108]

Thomas Foster was a man of great importance to John Morrell & Company and the city of Ottumwa. His biographer, R. Ames Montgomery, portrayed him as religious and civic minded, a man who practiced what he preached. Foster's involvement

in charitable and reform oriented societies grew out of two strong beliefs. First, he felt that loyalty to God was the first obligation of citizenship. Second, as a businessman, he argued that he was indebted to the community. Together these two beliefs compelled him to work at bettering his community.[109]

Although Foster was associated with many philanthropic organizations, two types appear to have had special attraction for him. As a deeply religious man, he firmly believed in the need to spread the gospel of Jesus Christ. Frequent correspondence with various organizations reveals this. Foster particularly loved the Bible, so much so that he supported five Bible institutes in the last ten or so years of his life.[110]

The second type of charitable organization that attracted Foster involved demon rum. He was an ardent supporter of temperance whether it be the "clean-up" effort in Fairfield, Iowa, the Businessman's Temperance Association of Iowa, or the Flying Squadron, Foster gave of his time, energy, and money in order to set the misguided on the proper path.[111]

Foster's other sort of charity involved the community of employees at Morrell. Scholars term his paternalistic behavior toward his workers welfare capitalism.[112] Foster's welfare capitalism led to the creation of several programs for his employees. In 1893, he sanctioned the creation of the Mutual Aid Association. Two butchers conceived this aid society and designed it to aid sick and injured Morrell workers. Foster also initiated the company picnic in the 1880s. These gatherings, he believed, would promote good relations between management and labor by promoting social intercourse. Finally, Foster heartily supported and financially encouraged the development of the YMCA in Ottumwa.[113]

Several important Ottumwa buildings reflect Foster's religious commitment and his business acumen. Foster built the old East End Chapel about 1885.[114] Located where the present office building stands, the chapel was conveniently located for employees of Morrell & Company. By 1900 Foster had built a second church, the East End Presbyterian Church, just up the street from the plant's main entrance.[115] A $5,000 contribution toward the construction of the YMCA building around 1890 also marks Foster's generosity.[116] In doing all of the above he endeared himself to the community and tactfully reminded his employees of the need for moral propriety.

NOTES

1. Telephone interview with Molly Myers Naumann conducted by Mary Yeater Rathbun, October 4, 1991.

2. Margaret Walsh, The Rise of the Midwestern Meatpacking Industry (Lexington: University Press of Kentucky, 1982),(hereinafter referred to as Walsh, Midwestern Meatpacking), pp. 7, 11.

3. Ibid., pp. 18-21.

4. Ibid., pp. 17-18; H.H. McCarty and C.W. Thompson, Meatpacking in Iowa, Studies in Business, no. 12 (Iowa City : State University of Iowa, 1933), pp. 9-12.

5. Walsh, Midwestern Meatpacking, pp. 45-46, 54.

6. Ibid., pp. 57, 63.

7. Ibid., pp. 69-70.

8. Walsh, Midwestern Meatpacking, pp. 69, 77; Margaret Walsh, "From Pork Merchant to Meatpacker: The Midwestern Meat Industry in the Mid 19th Century," Agricultural History 56, no. 1 (Jan. 1982), p. 135.

9. Stanley Miller, Inland Transportation (New York: McGraw-Hill, 1933), p. 719; Jimmy M. Skaggs, Prime Cut: Livestock Raising and Meatpacking in the United States, 1607-1983 (College Station: Texas A&M Press, 1986), pp. 43, 91.

10. Skaggs, pp. 90-91.

11. Ibid., p. 152; Miller, p. 719.

12. Reyner Banham, A Concrete Atlantis: United States Industrial Building and European Modern Architecture (Cambridge: MIT Press, 1986), pp. 3, 9, 43; and James F. Munce, Industrial Architecture: An Analysis of International Building Practice (New York: F.W. Dodge, 1960), pp. 3, 5, 9, and 39.

13. Munce, p. 39.

14. Munce, pp. 39, 41.

15. Chicago: Nickerson & Collins Co.

16. Skaggs, p. 189.

17. Munce, pp. 10, 40, and 41.

18. Ibid., pp. 41-49.

19. In the booth system all the work on a carcass is carried out by a few skilled men. The carcass remains in the same place while all these men carry out all the processes on it. Munce, p.192.

20. Skaggs, pp. 190-191; Munce, p. 192; David Brody, The Butcher Workmen: A Study of Unionization (Cambridge: Harvard Press, 1964), p. 242.

21. Ibid.

22. Skaggs, pp. 191-197; Brody, p. 243.

23. Brody, pp. 242-243.

24. McCarty and Thompson, pp. 9-12.

25. Ibid., pp. 9-12, 110-114.

26. Ibid., pp. 29-30.

27. Walsh, Midwestern Meatpacking, pp. 11, 101.

28. Morrell Magazine 4, no. 8 (Feb. 1928), p. 22.

29. Ibid., 17, no. 12 (June 1941), p. 22.

30. Ibid., 27, no. 7 (Jan. 1951), p. 10.

31."Iowa. Table 4: General Statistics by Industry Group and Industry 1954 and 1947" in Area Statistics, vol.III of 1954 Census of Manufacturers.

32."Iowa. Table 4: General Statistics by Industry Group and Industry 1958 and 1954" in Area Statistics, vol.III of 1958 Census of Manufacturers.

33."Iowa. Table 5: General Statistics by Industry Group and Industry 1963 and 1958" in Area Statistics, vol.III of 1963 Census of Manufacturers.

34."Iowa. Table 5: General Statistics by Industry Group and Industry 1967 and 1953" in Area Statistics, vol.III of 1967 Census of Manufacturers.

35."Iowa. Table 5: General Statistics by Industry Group and Industry 1972 and 1967" in Area Statistics, vol.III of 1972 Census of Manufacturers.

36. Lawrence Oakley Cheever, The House of Morrell (Cedar Rapids: Torch Press, 1948), p. 78; Morrell Magazine, 1, no. 4 (Oct. 1924), pp. 6-79.

37. Cheever, pp. 102-108, 122.

38. Ibid., pp. 121-122.

39. Ibid., p. 111.

40. Ibid., pp. 131-132, 143, 156, 164.

41. Ibid., pp. 188-190, 194-195.

42. Wilson J. Warren, "The Welfare Capitalism of John Morrell and Company, 1922-1937," Annals of Iowa 47, no. 6 (Fall 1984), (hereinafter referred to as Warren, "Welfare Capitalism") p. 497, 502-505; and Cheever, pp. 188-190, 194-1985.

43. Cheever, pp. 227, 232-235.

44. Morrell Magazine, 8-16, passim.

45. Cheever, pp. 216-222, 262.

46. Ibid., pp. 253-260, 263.

47. Warren, "Welfare Capitalism", p. 499; Inventory of Amalgamated Meat Cutters and Butcher Workmen of North America (hereinafter referred to as AMCBWNA), Local P-1, Ottumwa, Iowa, Records, 1946-1974.

48. Skaggs, chpt. 6, passim.

49. Eli M. Black was in 1975, when he died, Board Chairman and Chief Executive Officer of United Brands Conglomerate. United Brands Conglomerate owned John Morrell & Company as a subsidiary of its Chiquita Banana operation until American Financial Corporation bought Chiquita and all its subsidiaries from United Brands. Obituaries on File, Facts on File, New York 1970-1979; Ward's Business Directory of U.S. Private and Public Companies 1991, (Detroit: Gale Research Inc.)

50. Wilson Warren, "A History of John Morrell and Company Meatpacking in Ottumwa, Iowa" (unpublished seminar paper, 1981), pp. 38-43.

51. Planning Guide of 1968, box 22 of AMCBWNA, Local P-1 Records, Ottumwa, Iowa.

52. Modernization Study of 1970, box 22 of AMCBWNA, Local P-1 Records, Ottumwa, Iowa.

53. Wapello County History, (Wapello History Committee, 1986), p. 116 and telephone interview with Molly Naumann conducted by Mary Rathbun, August 13, 1991.

54. Cheever, p. 78.

55. Morrell Magazine 1, no. 3 (Sept. 1924), pp. 6-7.

56. Modernization Study, 1970.

57. Ibid.

58. Ibid.

59. Ibid.

60. Planning Guide of 1968.

61. Ibid.

62. Ibid.

63. Ibid.

64. Morrell Magazine 1, no. 6 (Dec. 1924), pp. 3-5; 1, no. 8 (Feb. 1924), p. 15.

65. Ibid., 1, no. 11 (May 1935), pp. 3, 22.

66. Ibid., 1, no. 10 (April 1925), p. 22; 2, no. 7, (Jan. 1926), p. 7.

67. Ibid., 2, no. 4 (Oct. 1925). p. 16.

68. Ibid., 2, no. 11 (May 1926), p. 14.

69. Ibid., 3, no. 5 (Nov. 1926), p. 16.

70. Ibid., 4, no. 5 (Nov. 1927), pp. 1-9.

71. Ibid., 3, nos. 11 and 12 (May and June 1927), pp. 2, 23, and p. 6.

72. Ibid., 5 no. 2 (Aug. 1928), pp. 3-6.

73. Ibid., p. 21.

74. Ibid., 5, no. 9 (Mar. 1929), p. 4.

75. Ibid., 7, no. 5 (Nov. 1930), p. 6; no. 6 (Dec. 1930), p. 3; 8, no. 8 (Feb. 1932), pp. 3-4; 9, no. 9 (May 1933), pp. 3-4.

76. Ibid., 9, no. 9 (Mar. 1933), p. 4.

77. Ibid., 11, no. 9 (Mar. 1935), p. 5; 12, no. 1 (JUly 1936), pp. 3, 8; 12, no. 11 (May 1936), p. 5.

78. Ibid., 13, no. 12 (June 1937), p. 5.

79. Ibid., 14, no. 1 (July 1937), p. 3.

80. Ibid., 15, no. 8 (Feb. 1939), p. 3; 17, no. 1 (July 1940), p. 32.

81. Ibid., 18, no. 1 (June 1941), p. 27.

82. C.E. Dillon, Meat Slaughtering and Processing (St.Louis: Meat Merchandizing, Inc., 1947), pp. 44-50.

83. Hans Peter Henschien, Packing House and Cold Storage Construction, A General Reference Work on the Planning, Construction and Equipment of Modern American Meat Packing Plants with Special Reference to the Requirements of the United States Government and a Complete Treatise on the design of Cold Storage Plants, Including Refrigeration, Insulation and Cost Data. (Chicago: Nickerson & Collins Co., 1915), p. 34.

84. Dillon, pp. 106-107.

85. Ibid., p.107.

86. Wilson Warren, "Workers and Labor Organizing at Morrell: A Quantitative Study of the Packinghouse Community of Ottumwa, Iowa: 1880-1915" (hereinafter referred to as Warren, "Workers and Labor") (unpublished seminar paper, 1983), pp. 9, 11.

87. Warren, "Workers and Labor," pp. 17-18.

88. Warren, "Workers and Labor," p. 35.

89. Obituary, Chicago Tribune, Feb. 13, 1959; Henschien, p. 3.

90. Morrell Magazine, 1, no. 3 (Sept. 1924), pp. 6-7.

91. Morrell Magazine 1, no. 6 (Dec. 1924), pp. 3-5; 1, no. 8 (Feb. 1924), p. 15; 9, no. 9 (Mar. 1933), p. 4.

92. Ibid., 15, no. 8 (Feb. 1939), p.3; 18, no. 1 (June 1941), p. 27; Chicago Tribune, Feb. 13, 1959.

93.Cheever, pp. 3-6.

94. Ibid, pp. 3, 5, 7; Morrell Magazine 1, no. 13 (Sept. 1924), pp. 3-4.

95.Cheever, pp. 9, 11-12, 14.

96. Morrell Magazine 1, no. 13 (Sept. 1924), pp. 3-4.

97.Cheever, pp. 7, 9, 11-12, 14.

98.Ibid., pp. 9, 11-12, 19.

99.Ibid., pp. 11, 17, 19.

100.Ibid., p. 19.

101. Ibid., pp. 29, 31, 15, 11; Morrell Magazine, 23, no. 9 (Sept. 1924), pp. 3-4.

102. Cheever, pp. 31-32, 34-35, 40, 43-45, 71; Morrell Magazine 23, no. 11 (May 1947), p. 44.

103.Cheever, p. 8, 12, 14-16.

104. Morrell Magazine, 23, no. 9 (Sept. 1924), pp. 3-4; Cheever, p.32.

105. Morrell Magazine, 1, no. 4 (Oct. 1924), pp. 6-7, 9; Cheever, pp. 32-33..

106.Cheever, pp. 40, 45, 55-56.

107. Morrell Magazine 1, no. 4 (Oct. 1924), p. 9; Cheever, pp. 33-34, 43, 45-46, 53-55, 71.

108. Morrell Magazine 1, no.4 (Oct. 1974), p. 7.

109. R. Ames Montgomery, T.D. Foster: A Biography (Privately printed, 1930), pp. 180-181.

110. Box 37, folder concerned with Foster's communication with various charitable organizations, John Morrell and Company Records.

111. Ibid.

112. Welfare capitalism can be defined in two ways. Stuart Brandes defines it as "any service proved for the comfort of improvement of employees which as neither a necessity of the industry nor required by law." By a more skeptical definition, it was a movement to maintain the open shop through reform within an industry. See Warren, "The Welfare Capitalism," p. 498, especially footnote no. 2.

113. Ibid.

114. Morrell Magazine 11, no. 4 (Oct. 1924), pp. 3, 21.

115. Ibid., 4, no. 11 (June 1928), p. 5.

116. Montgomery, p. 185.

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